

United States Patent [19]

Uchida et al.

[11] Patent Number: 4,861,602

[45] Date of Patent: Aug. 29, 1989

[54] PROCESS FOR TREATING FISH BODIES

[75] Inventors: Yasuzo Uchida, Tokyo; Yoichi Shirakawa, Urawa, both of Japan

[73] Assignee: Asahi Denka Kogyo Kabushiki Kaisha, Tokyo, Japan

[21] Appl. No.: 227,432

[22] Filed: Jul. 29, 1988

Related U.S. Application Data

[63] Continuation of Ser. No. 21,967, Mar. 5, 1987, abandoned.

[51] Int. Cl.⁴ A23J 1/04; A23L 1/325

[52] U.S. Cl. 426/56; 426/643; 426/657

[58] Field of Search 426/56, 55, 59, 63, 426/2, 7, 643, 656, 657

[56] References Cited

U.S. PATENT DOCUMENTS

3,041,174	6/1962	Ehlert	426/59
3,561,973	2/1971	Rutman	426/7
4,405,649	9/1983	Jeffreys et al.	426/56

Primary Examiner—Marianne Cintins

Attorney, Agent, or Firm—Frishauf, Holtz, Goodman & Woodward

[57] ABSTRACT

According to the process of the present invention, fish bodies, from which the internals and/or skins are optionally removed, are treated with a protease to give a gain in soluble nitrogen contained in the treated material based on the total nitrogen contained in the starting material of 3 to 50% to thereby give a slurry; and fish bones, fish oil, partially decomposed fish proteins and an aqueous solution containing water-soluble components are separated and recovered from said slurry.

4 Claims, No Drawings